

Exhibit 300 (BY2010)

| PART ONE | |
|---|-------------------------|
| OVERVIEW | |
| 1. Date of Submission: | 2008-09-08 |
| 2. Agency: | 026 |
| 3. Bureau: | 00 |
| 4. Name of this Capital Asset: | NASA IT Infrastructure |
| 5. Unique Project Identifier: | 026-00-02-00-01-0001-00 |
| 6. What kind of investment will this be in FY2010? | |
| Mixed Life Cycle | |
| 7. What was the first budget year this investment was submitted to OMB? | |
| FY2006 | |
| 8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap. | |
| <p>President Bush gave NASA a Vision for Space Exploration. The strategic management and transformation of IT will be imperative to effectively realizing the Vision for Space Exploration. Seamless collaboration of the NASA workforce across multiple locations will be vital in the planning, design, and development of exploration related capabilities and technology. The Agency is going through a transformation in how its mission gets accomplished and this fundamental change in business practice requires no less a transformation in IT Infrastructure (ITI) to support it. The NASA CIO has responsibility for ensuring that NASA's information assets are acquired and managed consistent with Federal policies, procedures, and legislation, and that the Agency's Information Resource Management strategy ensures alignment with NASA's vision, mission, and strategic goals. NASA continues to transform its ITI to maintain alignment with NASA's Strategic Plan reflecting the Vision for Space Exploration. This Five Year ITI Optimization Plan reflects the Agency's IRM Strategic Plan and its Infrastructure Segment Architecture dated February 2008. NASA's ITI will be managed by the fundamental principles of integration, security, and efficiency. NASA will implement IT that enables the integration of business (mission) processes and information across organizational boundaries. NASA will implement IT to achieve efficiencies and ensure that IT is efficiently implemented. NASA will implement and sustain secure IT solutions. Our primary optimization goals are: 1) Standardize and consolidate the management of end-user devices; 2) Define network perimeter and consolidate network management; 3) Establish Agency network visibility of IT assets and consolidate Agency security monitoring and mgmt; 4) Migrate systems to appropriately managed and secure data centers. While NASA conducts the technical actions required to optimize its infrastructure, it must ensure continuous improvement. This will be accomplished by transforming its ITI from a Center-centric delivery model to one that is Agency-centric. In order to accomplish this, NASA will develop an IT Service Model roadmap, conduct a tools rationalization, and model the Incident Response model based on recognized approach. The roadmap will be applied across telecommunications infrastructure first as it will require an updated service model to support the centralized service delivery model being employed.</p> | |
| 9. Did the Agency's Executive/Investment Committee approve this request? | |
| yes | |
| 9.a. If "yes," what was the date of this approval? | |
| 2008-06-19 | |
| 10. Did the Program/Project Manager review this Exhibit? | |
| yes | |
| 11. Program/Project Manager Name: | |
| Mike Hecker | |
| Program/Project Manager Phone: | |
| (202) 358-1540 | |
| Program/Project Manager Email: | |
| michael.hecker-1@nasa.gov | |
| 11.a. What is the current FAC-P/PM certification level of the project/program manager? | |

| | |
|--|----|
| Senior/Expert/DAWIA-Level 3 | |
| 11.b. When was the Program/Project Manager Assigned? | |
| 2007-06-13 | |
| 11.c. What date did the Program/Project Manager receive the FACP/PM certification? If the certification has not been issued, what is the anticipated date for certification? | |
| 2008-08-08 | |
| 12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project. | |
| yes | |
| 12.a. Will this investment include electronic assets (including computers)? | |
| yes | |
| 12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only) | |
| no | |
| 13. Does this investment directly support one of the PMA initiatives? | |
| yes | |
| If yes, select the initiatives that apply: | |
| Expanded E-Government | |
| 13.a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?) | |
| Project Consolidation: The President's Management Agenda (PMA) clearly identifies E-Government as a critical success factor for all Federal agencies. E-Government requires agencies to use IT to transform their operations in ways that improve effectiveness, efficiency, and service delivery. The principles of E-Government include having market-based, result-oriented, citizen-centered IT initiatives that unify business lines within and across agencies while simplifying business processes. | |
| 14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? | |
| no | |
| 14.a. If yes, does this investment address a weakness found during the PART review? | |
| no | |
| 15. Is this investment for information technology? | |
| yes | |
| 16. What is the level of the IT Project (per CIO Council's PM Guidance)? | |
| Level 2 | |
| 17. What project management qualifications does the Project Manager have? (per CIO Council's PM Guidance) | |
| (1) Project manager has been validated as qualified for this investment | |
| 18. Is this investment identified as high risk on the Q4 - FY 2008 agency high risk report (per OMB memorandum M-05-23)? | |
| no | |
| 19. Is this a financial management system? | |
| no | |
| 19.a.2. If no, what does it address? | |
| Investment is for NASA Integrated Info Infr Program (NIIIP), consistent with Infr Optimization Initiative (IOI). NIIIP is NASA strategy for managing transformation of Agency IT infrastructure via collection of 11 loosely connected architectures & multiple site-dependent systems to single, secure EA providing Agency wide IT infr services. Environment designed to support NASA's Strategic Plan, IOI, and expanding E-Gov initiative. Strategy is being evaluated, starting March 07, complete March 08. | |
| 20. What is the percentage breakout for the total FY2010 funding request for the following? (This should total 100%) | |
| Hardware | 12 |
| Software | 32 |
| Services | 35 |

| Other | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|-----------|----------------|-----------|----|----|--|-------|------|------|------|-------------------------------------|---|---|---|---|--|--------|----------|----------|----------|--|---------|-----------|-----------|-----------|----------------------------|--------|----------|----------|----------|------------------|-----|-----|-----|-----|
| 21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22. Contact information of individual responsible for privacy related questions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Patti Stockman | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone Number | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (202) 358-4787 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Title | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Agency Records and Privacy Act Officer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Email | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| patti.stockman@nasa.gov | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| yes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24. Does this investment directly support one of the GAO High Risk Areas? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| no | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SUMMARY OF SPEND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated Government FTE Cost, and should be excluded from the amounts shown for Planning, Full Acquisition, and Operation/Maintenance. The total estimated annual cost of the investment is the sum of costs for Planning, Full Acquisition, and Operation/Maintenance. For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| All amounts represent Budget Authority | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th></th> <th>PY-1 & Earlier</th> <th>PY</th> <th>CY</th> <th>BY</th> </tr> <tr> <th></th> <th>-2007</th> <th>2008</th> <th>2009</th> <th>2010</th> </tr> </thead> <tbody> <tr> <td>Planning Budgetary Resources</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Acquisition Budgetary Resources</td> <td>99.354</td> <td>54.83285</td> <td>63.38166</td> <td>57.81564</td> </tr> <tr> <td>Maintenance Budgetary Resources</td> <td>354.257</td> <td>313.07799</td> <td>324.02388</td> <td>325.54689</td> </tr> <tr> <td>Government FTE Cost</td> <td>23.031</td> <td>54.80633</td> <td>57.01818</td> <td>58.71582</td> </tr> <tr> <td># of FTEs</td> <td>356</td> <td>466</td> <td>468</td> <td>468</td> </tr> </tbody> </table> | | | PY-1 & Earlier | PY | CY | BY | | -2007 | 2008 | 2009 | 2010 | Planning Budgetary Resources | 0 | 0 | 0 | 0 | Acquisition Budgetary Resources | 99.354 | 54.83285 | 63.38166 | 57.81564 | Maintenance Budgetary Resources | 354.257 | 313.07799 | 324.02388 | 325.54689 | Government FTE Cost | 23.031 | 54.80633 | 57.01818 | 58.71582 | # of FTEs | 356 | 466 | 468 | 468 |
| | PY-1 & Earlier | PY | CY | BY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | -2007 | 2008 | 2009 | 2010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Planning Budgetary Resources | 0 | 0 | 0 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acquisition Budgetary Resources | 99.354 | 54.83285 | 63.38166 | 57.81564 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance Budgetary Resources | 354.257 | 313.07799 | 324.02388 | 325.54689 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Government FTE Cost | 23.031 | 54.80633 | 57.01818 | 58.71582 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| # of FTEs | 356 | 466 | 468 | 468 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Note: For the cross-agency investments, this table should include all funding (both managing partner and partner agencies). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Government FTE Costs should not be included as part of the TOTAL represented. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Will this project require the agency to hire additional FTE's? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| no | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yes. Actual life cycle of OAIT decreased from the previous summary of spending table described in this exhibit. The business management processes and the supporting financial management processes have changed to accommodate the evolving program needs and reporting requirements over the decades. For the purpose of this OMB Exhibit 300, the life-cycle costs reported cover FY 2003 through FY 2012. Costs have decreased by approximately \$250 million per year from 2006 and out, as compared to the | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

BY2007 Exhibit 300 submission. NASA's budget realignment to support the President's Vision for Space Exploration has caused a reduction in IT infrastructure budget.

PERFORMANCE

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding Measurement Area and Measurement Grouping identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond the next President's Budget.

| | Fiscal Year | Strategic Goal Supported | Measurement Area | Measurement Grouping | Measurement Indicator | Baseline | Planned Improvement to the Baseline | Actual Results |
|---|-------------|---|------------------------------|-------------------------------------|--|--|---|---|
| 1 | 2008 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Mission and Business Results | Program Evaluation | Frequency of Program Reviews | Yearly | Maintain annual reviews | Annual Reviews Accomplished |
| 2 | 2008 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Customer Results | Customer Satisfaction | Improved customer satisfaction in each service cluster, including: Accuracy of service or product delivered, delivery time, and service coverage | Determined by results of FY06 customer satisfaction survey | 10% improvement to baseline for all areas falling below 75% | 10% improvement based on customer survey attained |
| 3 | 2008 | Goal 3: Develop a balanced overall program of science, exploration and aeronautics. | Processes and Activities | Timeliness | Timeliness in meeting milestones for corrective actions | Baseline established by current FISMA report | 95% of milestones met for corrective actions | 95% of milestones met for corrective actions |
| 4 | 2008 | Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement. | Technology | Standards Compliance and Deviations | Percentage of investments aligned with NASA EA "to be" state | FY06 investments | 100% of new investments | 100% of new investments |
| 5 | 2008 | Goal 5: Encourage the pursuit of appropriate partnerships with the emerging commercial space sector | Technology | Standards Compliance and Deviations | Percentage of projects compliant with current NPR 7120.5 | FY06 projects | 100% of new projects | 100% of new investments |
| 6 | 2008 | Goal 6: Establish a lunar return program having | Processes and Activities | Security | Number of applications using account | Number of applications | 25 additional applications transitioned | 25 additional applications transitioned |

| | | | | | | | | |
|----|------|---|------------------------------|-------------------------------------|--|--|---|---|
| | | the maximum possible utility for later missions to Mars and other destinations. | | | management system | ns transitioned as of FY06 | | |
| 7 | 2008 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Processes and Activities | Security | Level of compliance with Agency Network Security Model | Level of compliance at end of FY06 | 25% compliance with Agency Network Security Perimeter model | 25% compliance with Agency Network Security Perimeter model |
| 8 | 2008 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Processes and Activities | Innovation and Improvement | Percentage of agency workforce with access to Agency-wide calendaring and messaging | TBD based on FY06 outcome | 75% | 75% |
| 9 | 2009 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Mission and Business Results | Program Evaluation | Frequency of Program Reviews | Yearly | Maintain annual reviews | TBD |
| 10 | 2009 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Customer Results | Customer Satisfaction | Improved customer satisfaction in each service cluster, including: Accuracy of service or product delivered, delivery time, and service coverage | Determined by results of FY07 customer satisfaction survey | 10% improvement to baseline for all areas falling below 75% | TBD |
| 11 | 2009 | Goal 3: Develop a balanced overall program of science, exploration and aeronautics. | Processes and Activities | Timeliness | Timeliness in meeting milestones for corrective actions | Baseline established by current FISMA report | 95% of milestones met for corrective actions | TBD |
| 12 | 2009 | Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement. | Technology | Standards Compliance and Deviations | Percentage of investments aligned with NASA EA "to be" state | FY07 investments | 100% of new investments | TBD |
| 13 | 2009 | Goal 5: Encourage the pursuit of appropriate partnerships with the emerging commercial space sector | Technology | Standards Compliance and Deviations | Percentage of projects compliant with current NPR 7120.5 | FY07 projects | 100% of new projects | TBD |

| | | | | | | | | |
|----|------|---|------------------------------|-------------------------------------|--|--|---|-----|
| 14 | 2009 | Goal 6: Establish a lunar return program having the maximum possible utility for later missions to Mars and other destinations. | Processes and Activities | Security | Number of applications using account management system | Number of applications transitioned as of FY07 | 150 additional applications transitioned | TBD |
| 15 | 2009 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Processes and Activities | Security | Level of compliance with Agency Network Security Model | Level of compliance at end of FY07 | 75% compliance with Agency Network Security Perimeter model | TBD |
| 16 | 2009 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Processes and Activities | Innovation and Improvement | Percentage of agency workforce with access to Agency-wide calendaring and messaging | TBD based on FY07 outcome | 100% | TBD |
| 17 | 2010 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Mission and Business Results | Program Evaluation | Frequency of Program Reviews | Yearly | Maintain annual reviews | TBD |
| 18 | 2010 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Customer Results | Customer Satisfaction | Improved customer satisfaction in each service cluster, including: Accuracy of service or product delivered, delivery time, and service coverage | Determined by results of FY07 customer satisfaction survey | 10% improvement to baseline for all areas falling below 75% | TBD |
| 19 | 2010 | Goal 3: Develop a balanced overall program of science, exploration and aeronautics. | Processes and Activities | Timeliness | Timeliness in meeting milestones for corrective actions | Baseline established by current FISMA report | 95% of milestones met for corrective actions | TBD |
| 20 | 2010 | Goal 4: Bring a new Crew Exploration Vehicle into service as soon as possible after Shuttle retirement. | Technology | Standards Compliance and Deviations | Percentage of investments aligned with NASA EA "to be" state | FY08 investments | 100% of new investments | TBD |
| 21 | 2010 | Goal 5: Encourage the pursuit of appropriate partnerships with the emerging | Technology | Standards Compliance and Deviations | Percentage of projects compliant with current NPR 7120.5 | FY08 projects | 100% of new projects | TBD |

| | | | | | | | | |
|----|------|---|--------------------------|----------------------------|---|--|---|-----|
| | | commercial space sector | | | | | | |
| 22 | 2010 | Goal 6: Establish a lunar return program having the maximum possible utility for later missions to Mars and other destinations. | Processes and Activities | Security | Number of applications using account management system | Number of applications transitioned as of FY07 | 150 additional applications transitioned | TBD |
| 23 | 2010 | Goal 1: Fly the Shuttle as safely as possible until its retirement, not later than 2010. | Processes and Activities | Security | Level of compliance with Agency Network Security Model | Level of compliance at end of FY07 | 75% compliance with Agency Network Security Perimeter model | TBD |
| 24 | 2010 | Goal 2: Complete the International Space Station in a manner consistent with NASA's International Partner commitments and the needs of human Exploration. | Processes and Activities | Innovation and Improvement | Percentage of agency workforce with access to Agency-wide calendaring and messaging | TBD based on FY07 outcome | 100% | TBD |

EA

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture?

yes

1.a. If no, please explain why?

The NASA Integrated Information Infrastructure Program is a key element for implementing the NASA Enterprise Architecture (EA) and is derived from that architecture. The service areas identified within the program map directly to the component level framework for the NASA EA. The NASA Enterprise Architecture includes a tailored version of the Federal Business Reference Model, Performance Reference Model, Data Reference Model, Application-Capability Reference Model, and the Technical Reference Model. The overlying goal is to reduce and eventually prevent the implementation of non-standard, inefficient, antiquated, overlapping, duplicative, or stove-piped investments. The NASA Enterprise Architecture, in combination with the CPIC process, is the key to NASA success in acquiring investments that enhance the operating efficiency and effectiveness of the supporting mission areas.

2. Is this investment included in the agency's EA Transition Strategy?

yes

2.a. If yes, provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

NASA Office Automation, IT Infrastructure, and Telecommunications (OAIT)

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

yes

3.a. If yes, provide the six digit code corresponding to the agency segment architecture. The segment architecture codes are maintained by the agency Chief Architect.

504-000

4. Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to <http://www.whitehouse.gov/omb/egov/>.

Component: Use existing SRM Components or identify as NEW. A NEW component is one not already identified as a service component in the FEA SRM.

Reused Name and UPI: A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

Internal or External Reuse?: Internal reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. External reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

Funding Percentage: Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the funding level transferred to another agency to pay for the service.

| | Agency Component Name | Agency Component Description | Service Type | Component | Reused Component Name | Reused UPI | Internal or External Reuse? | Funding % |
|---|----------------------------------|---|----------------------------------|-----------------------------------|-----------------------|------------|-----------------------------|-----------|
| 1 | Change Management | The Enterprise Architecture Project includes processes for management of changes to the architecture. (Current capability) | Management of Processes | Change Management | | | No Reuse | 0 |
| 2 | Configuration Management | The Enterprise Architecture Project includes processes for management of the configuration of the architecture elements. (Current capability) | Management of Processes | Configuration Management | | | No Reuse | 0 |
| 3 | Governance / Policy Management | The Enterprise Architecture Project includes a process for the governance of the architecture. (Current capability) | Management of Processes | Governance / Policy Management | | | No Reuse | 0 |
| 4 | Self-Service | Agency system provides automated process for users to perform password reset and the updating of selected user information. | Customer Initiated Assistance | Self-Service | | | No Reuse | 0 |
| 5 | Customer / Account Management | System allows for a consistent method of delegation of account authorization to the level of the data owner. | Customer Relationship Management | Customer / Account Management | | | No Reuse | 0 |
| 6 | Audit Trail Capture and Analysis | Agency system for account management facilitates forensics through uniform process of establishing and managing accounts complete with audit trail. | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 7 | Verification | Agency account management system provides uniform method for authorization that is easily tied to NASA's identity management systems. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 8 | Access Control | This project will deliver a capability to manage computer access privileges within and between Agency wide applications and services. | Security Management | Access Control | | | No Reuse | 0 |

| | | | | | | | | |
|----|----------------------------------|--|----------------------------------|-----------------------------------|--|--|----------|---|
| 9 | Verification | Uniform method of provisioning accounts and then verifying against existing identity systems. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 10 | Customer / Account Management | A key element of this project is the automation of the account management process. | Customer Relationship Management | Customer / Account Management | | | No Reuse | 0 |
| 11 | Audit Trail Capture and Analysis | This project will deliver the capability for centralized audit trails that track access requests and support independent audits of security practices and procedures. These audit trails capture all aspects of the administration of access rights from | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 12 | System Resource Monitoring | This project provides standard Agency LAN perimeter configuration including network monitoring and security services. | Systems Management | System Resource Monitoring | | | No Reuse | 0 |
| 13 | Configuration Management | Establishment of a uniform configuration and process that facilitates Enterprise application deployment and support. | Management of Processes | Configuration Management | | | No Reuse | 0 |
| 14 | System Resource Monitoring | Expansion of existing monitoring capabilities to facilitate the management and provisioning of Agency wide applications and services. | Systems Management | System Resource Monitoring | | | No Reuse | 0 |
| 15 | Quality Management | This project will deliver a standard Agency hardware, software, and processes solution for gate-keeping the flow of information from and to NASA Centers. | Management of Processes | Quality Management | | | No Reuse | 0 |
| 16 | Intrusion Detection | Enhance existing intrusion detection capabilities through stronger coordination of IDS results. | Security Management | Intrusion Detection | | | No Reuse | 0 |
| 17 | Role/Privilege Management | Consistent provisioning of Agency services through establishment of uniform methods of managing high-level network access privileges. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 18 | Audit Trail Capture and Analysis | This project will include as part of its solution an audit trail of events that may be analyzed to provide information about network security perimeter events. | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 19 | Role/Privilege Management | Uniform capability for users to update selected user data elements. | Customer Initiated Assistance | Self-Service | | | No Reuse | 0 |
| 20 | Workgroup / Groupware | Supports easy establishment of workgroups across the | Organizational Management | Workgroup / Groupware | | | No Reuse | 0 |

| | | | | | | | | |
|----|-----------------------------------|--|----------------------------------|-----------------------------------|--|--|----------|---|
| | | Agency. | | | | | | |
| 21 | Workgroup / Groupware | Supports establishment of uniform user rights and of groups rights for information/data sharing. | Organizational Management | Workgroup / Groupware | | | No Reuse | 0 |
| 22 | Identification And Authentication | Provides uniform method of authenticating users including audit trail. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 23 | Audit Trail Capture and Analysis | Provides uniform method authenticating users and audit trail for legacy applications with new Agency applications. | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 24 | Audit Trail Capture and Analysis | Provides uniform method for authenticating users and audit trail. | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 25 | Identification And Authentication | This project will provide Agency wide authentication services and integration of standard Agency credentials into existing operational applications and systems. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 26 | Identification And Authentication | Integrates with Account Management System to provide uniform Agency wide authentication service. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 27 | Contact and Profile Management | Provides user profiles used by Account Management System. | Customer Relationship Management | Contact and Profile Management | | | No Reuse | 0 |
| 28 | Identification And Authentication | Agency Identity management information system used with Account Management System for performing authentication and authorization services. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 29 | Self-Service | Provides easy user add moves and changes. | Customer Initiated Assistance | Self-Service | | | No Reuse | 0 |
| 30 | Remote System Control | Provides uniform Agency wide processes for managing WAN/LAN addresses with consistent process for managing network configuration. | Systems Management | Remote Systems Control | | | No Reuse | 0 |
| 31 | Workgroup / Groupware | Facilitates easy establishment of workgroups internal and external to NASA. | Organizational Management | Workgroup / Groupware | | | No Reuse | 0 |
| 32 | Process Tracking | Provides easy process for locating systems on NASA networks and for any add moves or changes associated with those systems. | Tracking and Workflow | Process Tracking | | | No Reuse | 0 |
| 33 | Remote System Control | The IP Address Management Project will provide the Agency wide capability for managing the Internet Protocol addresses issued by the American Registry of | Systems Management | Remote Systems Control | | | No Reuse | 0 |

| | | | | | | | | |
|----|-----------------------------------|--|----------------------------------|-----------------------------------|--|--|----------|---|
| | | Internet Numbers (ARIN). | | | | | | |
| 34 | Process Tracking | Assists in tracking add moves and changes that occur to networked equipment. | Tracking and Workflow | Process Tracking | | | No Reuse | 0 |
| 35 | Identification And Authentication | Provides network-based authorization when tied into Agency Account and Identity Management Systems. | Security Management | Identification and Authentication | | | No Reuse | 0 |
| 36 | Access Control | Provides uniform network access control. | Security Management | Access Control | | | No Reuse | 0 |
| 37 | Audit Trail Capture and Analysis | Provides needed data used in audit trail capture and analysis. | Security Management | Audit Trail Capture and Analysis | | | No Reuse | 0 |
| 38 | Call Center Management | WAN all center management is provided by multiple help desks and network management centers which receive, document, process, and resolve service interruptions and customer queries. (Current capability) | Customer Relationship Management | Call Center Management | | | No Reuse | 0 |
| 39 | Partner Relationship Management | Customer service representatives serve as focal points for customers and are assigned to groups of customers. These representatives are responsible for customer advocacy, collecting/documenting requirements, initiating/tracking/coordinating service requirements. | Customer Relationship Management | Partner Relationship Management | | | No Reuse | 0 |
| 40 | Customer Feedback | This project conducts annual customer forums, where updates on services, systems, organizations, contracts, policies, and processes are discussed. Attendance at these forums typically includes customers (NASA centers, programs, and projects), WAN support. | Customer Relationship Management | Customer Feedback | | | No Reuse | 0 |
| 41 | Surveys | Customers are requested to fill out a satisfaction survey after every service request is completed. Survey results are reviewed monthly and follow up is performed on negative surveys. (Current capability) | Customer Relationship Management | Surveys | | | No Reuse | 0 |
| 42 | Surveys | Customers are requested to fill out a satisfaction survey after every service request is completed. Survey results are reviewed monthly and follow up is performed on negative surveys. (Current capability) | Customer Relationship Management | Surveys | | | No Reuse | 0 |
| 43 | Alerts and Notifications | The project allows customers to subscribe to an automated | Customer Preferences | Alerts and Notifications | | | No Reuse | 0 |

| | | | | | | | | |
|-----------|--------------------------|---|-------------------------------|--------------------------|--|--|----------|---|
| | | activity and outage notification systems. (Current capability) | | | | | | |
| 44 | Alerts and Notifications | The WAN project provides subscription-invoked activity and outage notification to users based on key words and phrases that appear in the notification. (Current capability) | Customer Preferences | Alerts and Notifications | | | No Reuse | 0 |
| 45 | Online Help | The WAN project provides online help for its online services. (Current capability) | Customer Initiated Assistance | Online Help | | | No Reuse | 0 |
| 46 | Self-Service | The WAN project offers to its customers and online service request and work control system for generating, submitting, tracking, assigning, routing, approving, status, and reporting for customer requirements. (Current capability) | Customer Initiated Assistance | Self-Service | | | No Reuse | 0 |
| 47 | Online Help | The WAN project provides online trouble ticketing system that allows its customers to report problems. (Current capability) | Customer Initiated Assistance | Online Help | | | No Reuse | 0 |
| 48 | Change Management | Change management is accomplished via a Change Control Board which includes voting members from customer service, service management, business management, and security. (Current capability) | Management of Processes | Change Management | | | No Reuse | 0 |
| 49 | Configuration Management | Systems configuration documentation is maintained via network drawings, asset databases, and equipment labeling. (Current capability) | Management of Processes | Configuration Management | | | No Reuse | 0 |
| 50 | Requirements Management | The WAN project maintains an online service level agreement database containing listings of all documented customer requirements and resulting implementations. (Current capability) | Management of Processes | Requirements Management | | | No Reuse | 0 |
| 51 | Performance Management | Multiple monthly program management reviews are held to review highlights, service performance utilization, customer satisfaction, risks, cost/schedule status, and issues. (Current capability) | Investment Management | Portfolio Management | | | No Reuse | 0 |
| 52 | Quality Management | The WAN project conforms to Agency wide quality standards, including ISO. (Current capability) | Management of Processes | Quality Management | | | No Reuse | 0 |

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|-----------|------------------------------|---|-------------------------------|------------------------------|--|--|----------|---|
| 53 | Risk Management | Risks are identified, tracked, and reported. (Current capability) | Management of Processes | Risk Management | | | No Reuse | 0 |
| 54 | Threaded Discussions | Conferencing/collaborative tools are heavily used to conduct staff meetings, program reviews, customer meetings, and daily communications amongst project staff, customers, providers, and key stakeholders. (Current capability) | Collaboration | Threaded Discussions | | | No Reuse | 0 |
| 55 | Remotes Systems Control | The WAN network management centers provide monitoring, diagnostics, and configuration (including fixes/updates/upgrades) of remote devices via in-band and out-of-band access and tools, to ensure system performance and security with minimal human intervention. | Systems Management | Remote Systems Control | | | No Reuse | 0 |
| 56 | Performance Management | Performance management is accomplished via service performance/utilization reporting, earned value systems, cost reporting systems, and customer satisfaction metrics. (Current capability) | Investment Management | Performance Management | | | No Reuse | 0 |
| 57 | Portfolio Management | Catalog management is accomplished via an online service catalog, which is reviewed, updated, and published annually or as needed. (Current capability) | Investment Management | Portfolio Management | | | No Reuse | 0 |
| 58 | Online Tutorials | WAN project staff create online content for the capabilities on the WAN Web site. (Current capability) | Customer Initiated Assistance | Online Tutorials | | | No Reuse | 0 |
| 59 | Program / Project Management | Content review and approval is accomplished by WAN project management with oversight by the Change Control Board. (Current capability) | Management of Processes | Program / Project Management | | | No Reuse | 0 |
| 60 | Program / Project Management | WAN project documents are maintained in a central document repository. (Current capability) | Management of Processes | Program / Project Management | | | No Reuse | 0 |

5. To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component: Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications.

Service Specification: In the Service Specification field, Agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

| | SRM Component | Service Area | Service Category | Service Standard | Service Specification (i.e., vendor and product name) |
|-----------|---|-------------------------------------|-------------------------|------------------------------------|--|
| 1 | Access Control | Service Access and Delivery | Service Requirements | Authentication / Single Sign-on | "Vendor: RSA Product: SecureID |
| 2 | Access Control | Service Access and Delivery | Service Requirements | Authentication / Single Sign-on | Vendor: Athena Product: SmartCard |
| 3 | Access Control | Service Access and Delivery | Service Requirements | Authentication / Single Sign-on | Vendor: Eletek Product: DT Card Reader |
| 4 | Ad Hoc | Service Access and Delivery | Service Requirements | Authentication / Single Sign-on | Vendor: Business Objects Product: Crystal Reports |
| 5 | Alerts and Notifications | Service Access and Delivery | Service Transport | Supporting Network Services | Vendor: Documentum Product: e-Room |
| 6 | Alerts and Notifications | Service Access and Delivery | Service Transport | Supporting Network Services | Vendor: Microsoft Product: SharePoint |
| 7 | Alerts and Notifications | Service Access and Delivery | Service Transport | Supporting Network Services | Vendor: TechDoc Product: TechDoc |
| 8 | Asset Cataloging / Identification | Service Interface and Integration | Interoperability | Data Format / Classification | Vendor: NASA Product: NASA Equipment Management System |
| 9 | Asset Cataloging / Identification | Service Interface and Integration | Interoperability | Data Format / Classification | Vendor: Avid Product: Allienbrain |
| 10 | Asset Transfer, Allocation, and Maintenance | Component Framework | Data Interchange | Data Exchange | Vendor: NASA Product: NAMIS |
| 11 | Asset Transfer, Allocation, and Maintenance | Component Framework | Data Interchange | Data Exchange | Vendor: e-Tek Logic Product: TraxFast |
| 12 | Assistance Request | Service Access and Delivery | Service Transport | Supporting Network Services | Vendor: Remedy Product: Remedy |
| 13 | Audio Conferencing | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Sprint Product: NISN Teleconferencing Service |
| 14 | Audit Trail Capture and Analysis | Component Framework | Security | Supporting Security Services | Vendor: Tripwire Product: Tripwire Enterprise |
| 15 | Balanced Scorecard | Service Interface and Integration | Interface | Service Discovery | Vendor: Siebel Product: SAS |
| 16 | Benefit Management | Service Interface and Integration | Interface | Service Discovery | Vendor: SAP Product: Benefit Manager |
| 17 | CAD | Service Platform and Infrastructure | Software Engineering | Integrated Development Environment | Vendor: PTC Product: Pro Engineer Vendor: AutoDesk Product: AutoCAD Vendor: UGS Product: Unigraphics |
| 18 | Call Center Management | Service Access and Delivery | Service Transport | Supporting Network Services | Vendor: Remedy Product: Remedy |
| 19 | Catalog Management | Service Interface and Integration | Interface | Service Description / Interface | Vendor: LMIT Product: ODIN Product Catalog |
| 20 | Categorization | Service Interface and Integration | Interface | Service Description / Interface | Vendor: Rational Product: Rational Rose |
| 21 | Change Management | Service Interface and Integration | Interface | Service Discovery | Vendor: Telelogic Product: DOORS Vendor: ViTech Product: CORE |
| 22 | Classification | Service Interface and Integration | Interface | Service Description / Interface | Vendor: Hummingbird Product: SharePoint |

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|-----------|-----------------------------------|-------------------------------------|---------------------------|---------------------------------|--|
| | | and Integration | | Interface | SharePoint |
| 23 | Community Management | Service Interface and Integration | Interface | Service Discovery | Vendor: Microsoft Product: SharePoint |
| 24 | Computers / Automation Management | Service Platform and Infrastructure | Hardware / Infrastructure | Servers / Computers | Vendor: Microsoft Product: SMS |
| 25 | Computers / Automation Management | Service Platform and Infrastructure | Hardware / Infrastructure | Servers / Computers | Vendor: Patchlink Corporation Product: Patchlink |
| 26 | Computers / Automation Management | Service Platform and Infrastructure | Hardware / Infrastructure | Servers / Computers | Vendor: Netopia Product: Net Octopus |
| 27 | Computers / Automation Management | Service Platform and Infrastructure | Hardware / Infrastructure | Servers / Computers | Vendor: Microsoft Product: SMS Enterprise |
| 28 | Configuration Management | Service Interface and Integration | Interface | Service Discovery | Vendor: Intersolv Product: PVCS |
| 29 | Contact and Profile Management | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Microsoft Product: Outlook |
| 30 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Microsoft Product: Word |
| 31 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Corel Product: WordPerfect |
| 32 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Sun Product: Star Office |
| 33 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Microsoft Product: PowerPoint |
| 34 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Microsoft Product: Excel |
| 35 | Content Authoring | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Adobe Product: Acrobat |
| 36 | Content Review and Approval | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: IBM Product: Team Workplace |
| 37 | Customer / Account Management | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Remedy Product: Remedy |
| 38 | Customer Analytics | Service Interface and Integration | Interface | Service Description / Interface | Vendor: Remedy Product: Remedy |
| 39 | Customer Feedback | Service Access and Delivery | Access Channels | Collaboration / Communications | Vendor: Remedy Product: Remedy |
| 40 | Data Classification | Component Framework | Data Management | Reporting and Analysis | Vendor: Popkin, Inc. Product: Popkin |
| 41 | Data Cleansing | Component Framework | Data Interchange | Data Exchange | Vendor: Group 1 Software Inc. Product: NADIS |
| 42 | Data Exchange | Component Framework | Data Interchange | Data Exchange | Vendor: ITI Transcend Data Product: CADIQ |
| 43 | Data Integration | Component Framework | Data Interchange | Data Exchange | Vendor: ITI Transcend Data Product: DEXcebtter |
| 44 | Data Mining | Component Framework | Data Management | Reporting and Analysis | Vendor: Oracle Product: Oracle Data Mining |

| | | | | | |
|-----------|-------------------------------|---------------------|------------------|-----------------------------------|--|
| 45 | Data Recovery | Component Framework | Data Interchange | Data Exchange | Vendor: On Track Product: EasyRecovery Data Recovery |
| 46 | Data Warehouse | Component Framework | Data Interchange | Data Exchange | Vendor: Oracle Product: Data Warehouse Builder |
| 47 | Decision Support and Planning | Component Framework | Data Management | Reporting and Analysis | Vendor: Cognos, Inc. Product: COGNOS |
| 48 | Decision Support and Planning | Component Framework | Data Management | Reporting and Analysis | Vendor: Primavera Systems, Inc. Product: Primavera |
| 49 | Digital Signature Management | Component Framework | Security | Certificates / Digital Signatures | Vendor: Entrust, Inc. Product: Entrust |
| 50 | Document Classification | Component Framework | Data Management | Reporting and Analysis | Vendor: Microsoft Product: Word |
| 51 | Document Conversion | Component Framework | Data Interchange | Data Exchange | Vendor: Microsoft Product: Microsoft Document Conversion Utility |

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?

yes

6.a. If yes, please describe.

NASA will continue to leverage existing components and applications across the government. The Agency will continue to participate actively in the E-Gov initiatives, building upon the partnerships established through agreements established to date with the managing partners. NASA currently has links directly to FirstGov from the home page within the One NASA portal, and is making use of DISA's XML registry as opposed to building an Agency-unique solution. E-Government Leveraging Opportunities include E-Authentication, Grants.gov, E-Payroll, E-Rulemaking, E-Training, Recruitment Onestop, and Geospatial Onestop. Federal Enterprise Architecture Leveraging Opportunities - The Federal Enterprise Architecture is a critical area in which NASA is leveraging existing components and applications across the government. The Federal Enterprise Architecture is driving the NASA Enterprise Architecture, requiring the Agency architecture to fit within a larger, Government wide framework. The NASA Enterprise Architecture, in turn, provides the framework for the NASA Integrate Information Infrastructure Program. The NASA Enterprise Architecture is also a key requirement of the Control Phase of the Capital Planning and Investment Process. The objective of the Control Phase is to ensure, through timely oversight, quality control, and executive review, that investments under development are managed in a disciplined, effective, and consistent manner. The Control Phase is characterized by decisions to continue, modify, or terminate investments or on-going systems. The requirement is to ensure that agency Enterprise Architecture (EA) policies and procedures are being followed. This includes ensuring that EA milestones are reached and documentation is updated as needed.

PART TWO

RISK

You should perform a risk assessment during the early planning and initial concept phase of the investment's life-cycle, develop a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

Answer the following questions to describe how you are managing investment risks.

1. Does the investment have a Risk Management Plan?

yes

1.a. If yes, what is the date of the plan?

2004-09-01

1.b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

no

1.c. If yes, describe any significant changes:

An updated Risk Management Plan is anticipated to be signed in November 2008.

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

An updated Risk Management Plan is anticipated to be signed in November 2008. NASA has updated its infrastructure implementation plans to better align with OMB's Infrastructure Optimization Initiative (IOI). Executive leadership will be presented with an updated strategy and, if given a favorable decision, the risk management plan will be updated accordingly. The risk

management plan and the update being worked addresses technical obsolescence, interoperability with other investments and the competitive procurement approach in addition to technical, cost and schedule risk. Risks identified in the IT Risk plan were evaluated for cost, schedule and technical impact on the estimated life cycle cost of Alternative 1 discussed above in Part IIA. Risk was evaluated using the RI\$K tool in the Automated Cost Estimating Integrated Toolset (ACEIT), which employs a monte carlo simulation to evaluate the probability of estimated costs being greater than the estimate, leading to over runs in spending for the program. The costs and benefits shown above include dollars to mitigate the risk of an over run at 50% confidence. The resulting dollar value is included as management and program reserve in the budget, which can be used to offset the cost impact of schedule delays or development changes due to unforeseen technical issues. All risk is included as a dollar value in management and program reserve; the IIIP schedule associated with the costs for Alternative 2 was not explicitly changed in the analysis to accommodate schedule risk. (The NASA IT management strategy was initiated in March 07 and the Risk Management Plan is in the process of being updated based on this strategy completion in March 2008)

COST & SCHEDULE

1. Does the earned value management system meet the criteria in ANSI/EIA Standard 748?

yes

2. Is the CV% or SV% greater than $\pm 10\%$?

no

3. Has the investment re-baselined during the past fiscal year?

no